CLAIMS

1. Flexible implantable structure for the sustained and controlled release of an active principle, consisting of a bioabsorbable support and an active principle intimately associated with said support, which exhibits a cohesion between the active principle and the bioabsorbable support that is induced by the wettability of one of the components of the structure, and in which the bioabsorbable support is formed of a mixture of an amorphous lactic acid/glycolic acid copolymer having a weight ratio between the lactic acid and glycolic acid units ranging from about 80/20 to 20/80, preferably ranging from about 70/30 to 30/70 and particularly preferably of 50/50, and about 0.5 to 20% by weight, preferably about 5 to 15% by weight, based on the weight of the support, of a biocompatible plasticizer selected from lactic acid, a lactic acid oligomer and a mixture of these compounds, said mixture of copolymer and plasticizer having a Tg below or equal to 15°C.

2. Implantable structure according to claim 1 in which the active principle is selected from local anesthetics, morphine or non-morphine analgesics, healing factors, anti-inflammatories, antibiotics, antifungals, corticoids, hormones, anti-mitotics, growth factors and a mixture of these active principles.

3. Implantable structure according to claim 2 in which the active principle is a local anesthetic.

4. Implantable structure according to one of claims 1 to 3 which is in the form of a yarn, film, hank, ribbon of parallelepipedal shape with a square or rectangular base, sliver, woven or non-woven fabric, plate, catheter, tablet, sheet or suture thread.

5. Implantable structure according to one of claims 1 to 4 which is in the form of a sandwich structure.

6. Process for the manufacture of a flexible implantable structure for the sustained and controlled release of an active principle, consisting of a homogeneous composite structure with coherent interfaces, in which the bioabsorbable support is formed of a mixture of an amorphous lactic acid/glycolic

acid copolymer having a weight ratio between the lactic acid and glycolic acid units ranging from about 80/20 to 20/80, preferably ranging from about 70/30 to 30/70 and particularly preferably of 50/50, and about 0.5 to 20% by weight, preferably about 5 to 15% by weight, based on the weight of the support, of a biocompatible plasticizer selected from lactic acid, a lactic acid oligomer and a mixture of these compounds, said mixture of copolymer and plasticizer having a Tg below or equal to 15°C, said process comprising the following steps:

a) mixing of the component products of the structure,

b) passage, with or without applied pressure, through a transfer chamber, either b1) at a temperature between the melting point of the active principle and the glass transition temperature or melting point of the copolymer, or b2) at a temperature that is above both the melting point of the active principle and the glass transition temperature of the copolymer, and

c) shaping of the implantable structure under pressure from this intermediate state.

7. Process according to claim 6 which also comprises d) a heat treatment step.

8. Process according to claim 6 or 7 which is a process of compression – transfer molding, injection – transfer molding, or extrusion or spinning with a preliminary transfer step.

9. Process according to one of claims 6 to 8 in which the mixture of products obtained in step a) is ground to give a particle size ranging from about 5 to 150 μm, preferably from about 10 to 50 μm.

10. Process according to one of claims 6 to 9 in which the active principle is selected from local anesthetics, morphine or non-morphine analgesics, healing factors, anti-inflammatories, antibiotics, antifungals, corticoids, hormones, anti-mitotics, growth factors and a mixture of these active principles.

11. Process according to claim 10 in which the active principle is a local anesthetic.